

ABSTRACT OF THE DISCLOSURE

This invention detects an operating voltage output from a power supply circuit of an electric device using a control microcomputer, and makes a power supply detection circuit protecting the control microcomputer from an overvoltage and, a reduced voltage, compact. The power supply detection circuit includes a first circuit, a second circuit, and a third circuit. The first circuit includes a first switching element. The second circuit includes a first voltage detection element and a second switching element. The third circuit includes a second voltage detection element and a third switching element. If a proper voltage is output from a voltage output terminal, the third circuit is made continuous, thereby turning on the first switching element and inputting a proper voltage signal to a power fail terminal of the control microcomputer. If an overvoltage is output, the second circuit is made continuous and the power fail terminal is set at a ground potential, thereby protecting the control microcomputer. If a reduced voltage is output from the terminal, none of the first circuit, the second circuit, and third circuit are made continuous, whereby the control microcomputer detects that the reduced voltage is output.